APPLICATION NUMBER: 3339618 DATE: 2022-04-21 09:27

APPROVED IN TERMS OF SECTION 7 OF THE NATIONAL BUILDING REGULATIONS AND BUILDING STANDARD ACT, (ACT 103 OF 1977), SUBJECT TO CONDITIONS AS PER THE APPROVAL LETTER, IN TERMS OF SECTION 15(4) OF THE ACT, THE APPROVAL SHALL LAPSE AFTER A PERIOD OF 12 MONTHS.

BRENDON GABRIELS

ACTING MANAGER: BUILDING CONTROL

COUNCIL STAMP

WATER DEMAND AND CONSUMPTION: (as per part XA of SANS 10400).

1 POPULATION (Pop): = 3 Double Bed Bedrooms x 2 people
= 6 People

Assume that the house is occupied between 07:00 - 08:00 and 18:00 - 21:00 week days.
That is = 4 hours per day during the week.
Week days: 6/24 x 5days = 20/7)

Assume that on weekends the house is occupied between 08:00 - 22:00. That is 14 hours per day on weekends.
Weekends: 14/24 x 2days = 28/7)

Total Hours(h) per Week: **= 48/h)**

Total Hours per Annum: (48 x 52) / (365 x 24)
= 0.2968 / hour
= 2.596

CONSUMPTION (Cons.): Pop. x Daily usage / capita - SANS 10252 (115L / day)
= 6 x 115L / 0.296
= 199.60L / day @ 38°C

60% Hot water to be supplied by non-electric resistance heating:

Paloma Gas Water Heating System or equal to supply 100% of water heating

INSULATION REQUIRED:
REQUIRED: Internal diameter of hot water pipes: <80mm = min. required r-value = 1.00 (SANS 204).
PROVIDED: 32mm Wavin Black Geyser pipe insulation non-combustible light-weight fibreglass Glasswool geyser insulation size 3000 x 1200mm with edges sealed with binding tape including 15 x 20mm Glasswool Snap-on pipe insulation on all hot and cold water pipes, all in accordance with the manufacturer's recommendations.
R-value = 1.00m² K/W = **COMPLY**

ROOF INSULATION:

ROOF MATERIAL R-VALUE = 0.420
135MM ISOTHERM INSULATION R-VALUE = 3.380
6.4MM GYPSUM PLASTERBOARD R-VALUE = 0.061

TOTAL R-VALUE = 3.861
DESIGN COPLIES WITH MIN R-VALUE

ENERGY DEMAND: (AS PER PART XA OF SANS 10400)

ALLOWED: (TABLE 12-SANS 204): 5W/M² X 178M² = 890W
PROVIDED: 313W WHICH IS LESS THAN ALLOWED. COMPLY
OR 313W / 178M² = 1.75W/M², WHICH IS LESS THAN 5W/M² ALLOWED.

ENERGY CONSUMPTION: (AS PER PART XA OF SANS 10400)

ALLOWED: 5KWH/M² A OR 5KWH/M² (A÷1YEAR)
5KWH/M² A X 178M² = 890KWH.A

ASSUME LIGHTS ARE ON FOR 5 HOURS PER DAY/YEAR
52(WEEKS) X 7(DAYS) X 5(H) = 1820H.A
LAMPS = 313W OR .313KW
.313KW X 1820H.A = 569.66KWH.A WHICH IS LESS THAN ALLOWED. COMPLY

GAS NOTES :

20L/MIN PALOMA GAS WATER HEATER OR SIMILAR
INSTALLED BY REGISTERED PROFESSIONAL
IN ACCORDANCE WITH SANS 10087 REGULATIONS

GAS PIPING IN ACCORDANCE WITH SANS 10087-1
ENCASED IN FLOOR SLAB

GAS BOTTLE MAY NOT BE INSTALLED:
LESS THAN 1M SIDEWAYS FROM DOORS & WINDOWS
LESS THAN 2M FROM DRAINS AND AIRVENTS
LESS THAN 3M BELOW WINDOWS(UNLESS NON COMBUSTABLE ROOF IS INSTALLED)
LESS THAN 1M FROM THE PROPERTY BOUNDARY(IF FIREWALL IS PRESENT)OTHERWISE 3M FROM BOUNDARY
LESS THAN 5M SIDEWAYS AWAY FROM STICHABLE ELECTRIC POINT OR PLUG SWITCH AND SOCKET
OR ELECTRICAL MOTOR OR POOL PUMP

LIGHT BULBS CANNOT BE LESS THAN 1.5M ABOVE A GAS BOTTLE

6 PENDANT LIGHTS @ 15WATTS EACH = 90W
43 LED DOWNLIGHTS @ 3WATTS EACH = 129W
2 WALL MOUNTED LIGHTS @ 11WATTS EACH = 22W
2 FLOURESCENT LED LIGHT @ 36WATTS EACH = 72W

TOTAL CONSUMPTION = 313W

HOT & COLD WATER NOTES:

DRAWINGS FOR HOT AND COLD WATER LAYOUT PURPOSES ONLY.

HOT & COLD WATER:
All Piping to be copper (class O).
All Piping to be installed, supplied and specified according to manufacturers recommendations.
All Piping to Comply with SANS 10252.
All Hot & Cold water supply to comply with SANS 204.

HOT WATER PIPING:
15mm Copper (class O) pipe: max. length of pipe containing 4 L of water = 26.7m
22mm Copper (class O) pipe: max. length of pipe containing 4 L of water = 12.1m

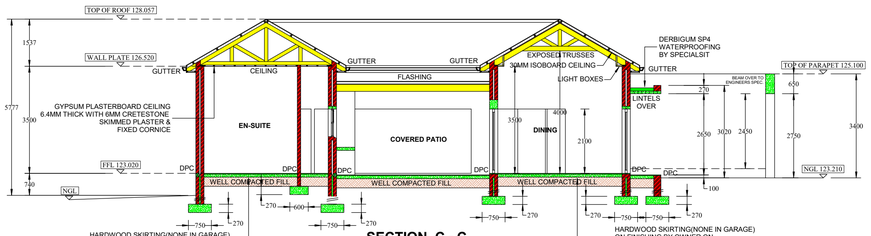
INSULATION REQUIRED:
REQUIRED: Internal diameter of hot water pipes: <80mm = min. required r-value = 1.00 (SANS 204).
PROVIDED: 32mm Wavin Black Geyser pipe insulation non-combustible light-weight fibreglass Glasswool geyser insulation size 3000 x 1200mm with edges sealed with binding tape including 20mm Glasswool Snap-on pipe insulation on all hot and cold water pipes, all in accordance with the manufacturer's recommendations.
R-value = 1.00m² K/W
All Water supply to comply with SANS 10252-1:2012.
All Energy usage and Environmental sustainability to comply with SANS 10400-XA:2011.
All Energy usage and efficiency in buildings to comply with SANS 204:2011.

ROOF CONSTRUCTION : DWELLING

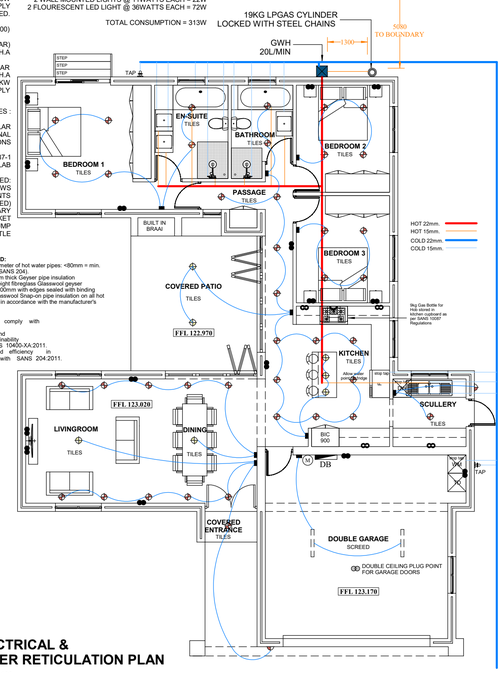
0.5MM LONGSPAN CHARCOAL COLORBOND ROOFSHEETS ON 76X50MM PURLINS
@ 1.0M C/C MAX. ON SISALATION MATERIAL BY SPECIALIST(R-VALUE MIN 0.6) ON
PRE-FABRICATED ROOF TRUSSES BY TRUSS SPECIALIST AT 1.2M C/C MAX.
(EXPOSED TRUSSES OVER LIVING/DINING AREA) ON 114X38MM WALLPLATES
ANCHORED TO WALLS MEANS OF GALV. HOOP-IRON BUILT MIN 600MM INTO BRICK WORK.
25MM ISOBOARD CEILINGS ONTOP OF TRUSSES.SAGEX CORNICE PAINTED AS PER OWNER.
SEAMLESS CHARCOAL ALUMINIUM GUTTERS
AND 76MM DIA DOWNPIPES WITH 225X15MM F.C. FACIA. ROOFSLOPE: 30°

ROOF CONSTRUCTION : COVERED PATIO

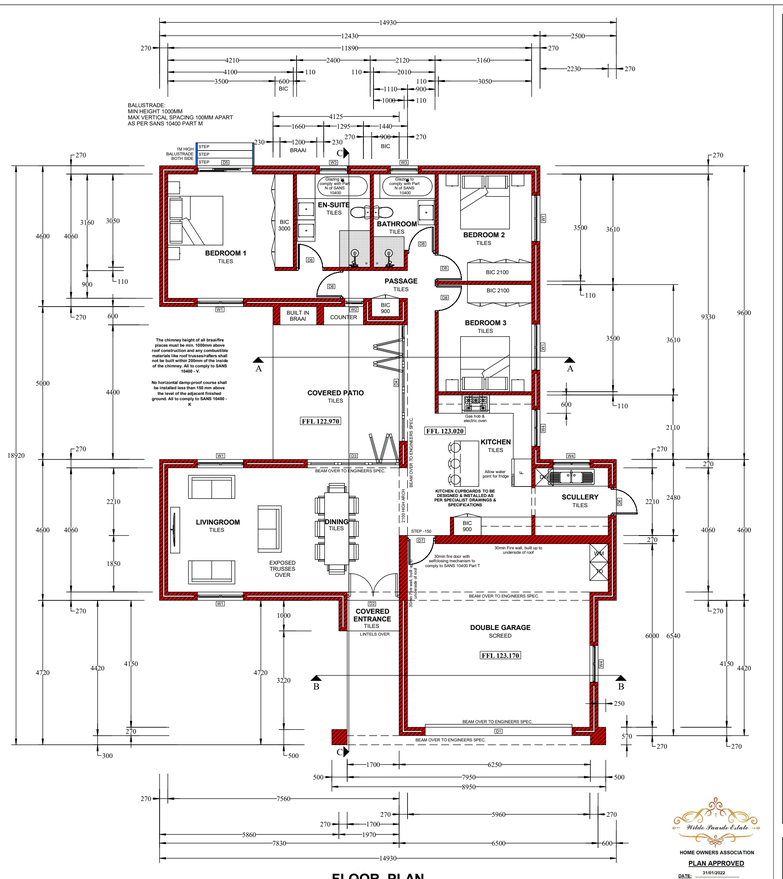
0.5MM LONGSPAN CHARCOAL COLORBOND ROOFSHEETS ON
SISALATION MATERIAL BY SPECIALIST(R-VALUE MIN 0.6) ON
228X50MM RAFTER BEAMS @ 1.0M C/C MAX. WALLPLATES ANCHORED
TO WALLS MEANS OF GALV. HOOP-IRON BUILT MIN 600MM INTO BRICK WORK.
SAGEX CORNICE PAINTED AS PER OWNER. SEAMLESS CHARCOAL ALUMINIUM GUTTERS
AND 76MM DIA DOWNPIPES WITH 225X15MM F.C. FACIA. ROOFSLOPE: 30°



SECTION C - C
SCALE 1:100



ELECTRICAL & WATER RETICULATION PLAN
SCALE 1:100



FLOOR PLAN
SCALE 1:100

GENERAL NOTES

1. ALL MATERIALS & CONSTRUCTION METHODS TO COMPLY WITH THE NATIONAL BUILDING REGULATIONS, INCLUDING ALL REVISIONS & ALL APPLICABLE BY-LAWS OF THE LOCAL AUTHORITY CONCERNED.
2. CONTRACTOR SHALL VERIFY & CHECK ALL LEVELS & DIMENSIONS ON SITE VEFORE COMMENCEMENT OF ANY WORK.
3. WRITTEN DIMENSIONS TO BE USED IN PREFERENCE TO SCALING DRAWINGS. NO DRAWINGS TO BE SCALED.
4. ANY DISCREPANCIES OR CONTRADICTIONS MUST IMMEDIATELY BE POINTED OUT TO THE DESIGNER FOR CORRECTIONS OR EXPLANATIONS BEFORE ANY CONSTRUCTION COMMENCES.
5. PROVIDE TERMITE TREATMENT BELOW SURFACE BED AS PER SABS0124.
6. ALL ELECTRICAL & PLUMBING WORK TO BE CARRIED OUT BY REGISTERED & QUALIFIED SUB-CONTRACTORS.
7. FLOOR LEVEL TO BE MIN. 280mm ABOVE FINISHED EXTERNAL GROUND LEVELS.
8. PRECISE FINISHED FLOOR LEVEL TO BE ESTABLISHED ON SITE TOGETHER WITH DEPTHS OF FOUNDATIONS WHICH WILL BE BROUGHT DOWN A MINIMUM OF 600mm BELOW GROUND LEVEL TO A SOLID BASE.
9. ALL PRECAST LINTELS EXCEEDING 900mm OPENINGS TO BE LAID IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATION.
10. STEPS:
    MAX RISERS: 200mm
    MIN TREAD: 250mm
11. ALL TIMBER BUILT INTO WALLS SHOULD BE WRAPPED IN DPC & WATERPROOFED.
12. SETTING OUT FROM MUNICIPAL APPROVED PLANS ONLY. THE CONTRACTOR WILL BE HELD LIABLE FOR THE CORRECT SETTING OUT OF THE BUILDING.
13. WALL STRUCTURE:
    270 mm = EXTERNAL 50mm CAVITY WALL.
    110 mm = INTERNAL WALL
14. FINAL FINISHED FLOOR LEVELS TO BE DECIDED & CONFIRMED ON SITE BETWEEN PRINCIPLE AGENT & OWNER.
15. DPC GROUND TEST TO BE COMPLETED BEFORE COMMENCEMENT OF WORKS, TO DETERMINE DEPTH OF FOUNDATIONS AND POSITIVE BEARING CAPACITY, REFER TO A STRUCTURAL ENGINEER FOR CONFIRMATION.
16. WALL CONSTRUCTION:
    AVERAGE COMPRESSIVE STRENTH 3MPA. - 4 MPA.
    LAND STRETCHER BOND WITH BUTTERFLY TIE WIRES 2.5 PER m2 AS PER PART K OF SANS 10400.
17. MORTAR MIX: CLASS II WITH LADDER TYPE BRICKFORCE WITHIN WALLS.
18. EVERY COURSE UP TO FLOOR LEVEL OF FOUNDATION WALLS TO BE FILLED WITH CONCRETE.
19. BATHROOM & KITCHEN SHOULD BE SUPPLIED WITH AN EXTRACTOR FAN OF 25l/s & 50l/s RESPECTIVELY AS PER PART O OF THE NBR.
20. SAFETY GLAZING AS PER PART N OF NBR.
21. FENESTRATION CALCULATIONS TO BE IN TERMS OF PART XA OF SANS 10400.
22. FIREWALL TO BE BUILT TO UNDERSIDE OF ROOF COVERING IN TERMS OF SANS 10400/1011 T 4.9.2.
23. FIRE DOOR TO BE FITTED WITH SELF-CLOSER.
24. PROPOSED GAS INSTALLATION MUST COMPLY WITH SANS 10087 PART T. ALL WORK TO BE CARRIED OUT BY A REGISTERED INSTALLER. GAS INSTALLATION TO BE 2m FROM DRAINS, PIT OR MANHOLES & 5m FROM ELECTRICAL SOURCE IN TERMS OF SANS 10087 PART 1 (5.2.3). 2 X 9kg GAS CYLINDERS TO BE INSTALLED (POSITION BY SPECIALIST.)

GENERAL NOTES:

DRAWINGS FOR ELECTRICAL PURPOSES ONLY.

1. No person may do electrical installation work as an electrical contractor unless that person has been registered as an electrical contractor in terms of these Regulations.
2. No person other than a registered person may issue a certificate of compliance.
3. All switches including A/C, underfloor heating, sound, etc. should be mounted neatly & level next to one another @ 1300mm from FFL.
4. All switches including A/C, underfloor heating, sound, etc. to be evenly spaced where possible.
5. Always install as many switches as possible on one fitting.
6. Also centralise switches on short walls as far as possible.
7. All conduits for electrical purpose to be 25mmø.
8. All conduits for TV/DSTV purposes to be 32mmø.

ENERGY CALCULATIONS

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